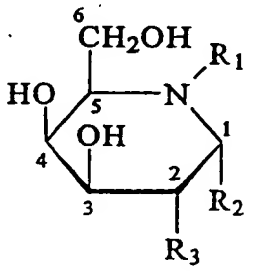
IN THE CLAIMS

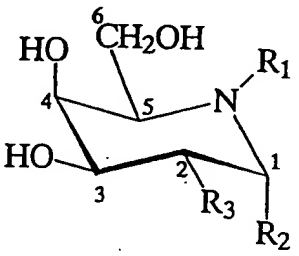
Please cancel claims 1-9. Please add new claims 10-48 as follows:

1-9. Canceled

10. (new) A method of treating Fabry disease comprising administering to an individual in need thereof an effective amount of a compound of the formula:



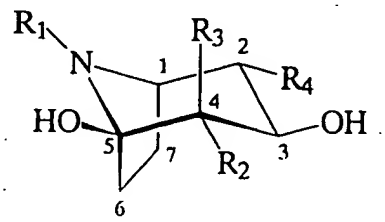
or



wherein R_1 represents H, CH_3, or CH_2CH_3; and

R_2 and R_3 independently represent H, OH, a simple sugar, a 1-3 carbon alkyl, alkoxyl, or hydroxyalkyl group.

11. (new) A method of treating Fabry disease comprising administering to an individual in need thereof an effective amount of a compound of the formula:



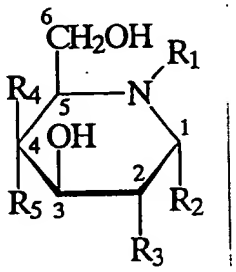
wherein for calystegine A_3: R_1= H, R_2=OH, R_3=H, R_4=H;

for calystegine B_2: R_1= H, R_2=OH, R_3=H, R_4=OH;

for calystegine B_3; R_1= H, R_2=H, R_3=OH, R_4=OH; and

for N-methyl-calystegine: R_1= CH_3, R_2=OH, R_3=H, R_4=H.

12. (new) A method of treating Fabry disease comprising administering to an individual in need thereof an effective amount of a compound of the formula:

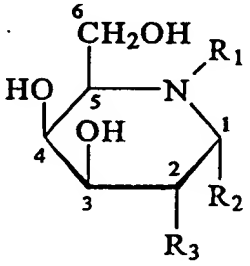


wherein R_1 represents H, CH_3, or CH_2CH_3;

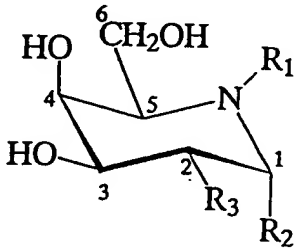
R_2 and R_3 independently represent H, OH, a 1-6 carbon alkyl, hydroxyalkyl, alkoxy, or a simple sugar; and

R_4 and R_5 independently represent H or OH.

13. (new) A method of enhancing the activity of lysosomal α-galactosidase A in a mammalian comprising administering an effective amount of a compound of the formula:



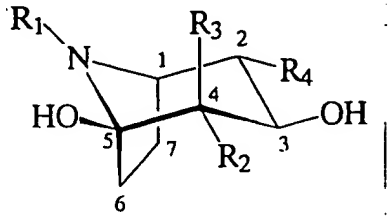
or



wherein R_1 represents H, CH_3, or CH_2CH_3; and

R_2 and R_3 independently represent H, OH, a simple sugar, a 1-3 carbon alkyl, alkoxyl, or hydroxyalkyl group.

14. (new) A method of enhancing the activity of lysosomal α-galactosidase A in a mammalian comprising administering an effective amount of a compound of the formula:



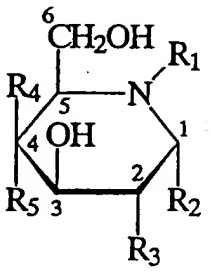
wherein for calystegine A_3: R_1= H, R_2=OH, R_3=H, R_4=H;

for calystegine B_2: R_1= H, R_2=OH, R_3=H, R_4=OH;

for calystegine B_3; R_1= H, R_2=H, R_3=OH, R_4=OH; and

for N-methyl-calystegine: R_1= CH_3, R_2=OH, R_3=H, R_4=H.

15. (new) A method of enhancing the activity of lysosomal α-galactosidase A in a mammalian comprising administering an effective amount of a compound of the formula:



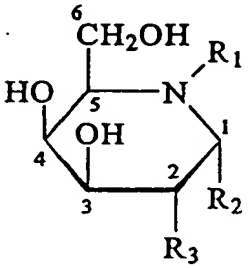
wherein R_1 represents H, CH_3, or CH_2CH_3;

R_2 and R_3 independently represent H, OH, a 1-6 carbon alkyl, hydroxyalkyl, alkoxy, or a simple sugar; and

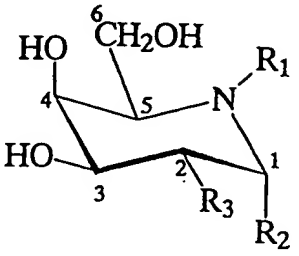
R_4 and R_5 independently represent H or OH.

16. (new) A method of stabilizing lysosomal α-galactosidase A in mammalian cells comprising administering an effective amount of a compound of formula:

16. (new) A method of stabilizing lysosomal α-galactosidase A in mammalian cells comprising administering an effective amount of a compound of formula:



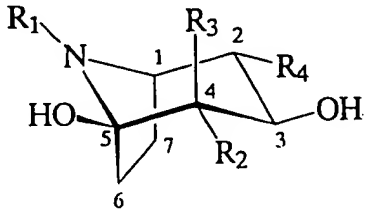
or



wherein R_1 represents H, CH_3, or CH_2CH_3; and

R_2 and R_3 independently represent H, OH, a simple sugar, a 1-3 carbon alkyl, alkoxyl, or hydroxyalkyl group.

17. (new) A method of stabilizing lysosomal α-galactosidase A in mammalian cells comprising administering an effective amount of a compound of formula:



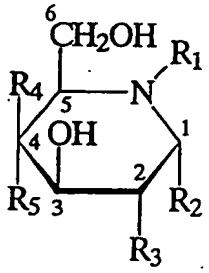
wherein for calystegine A_3: R_1= H, R_2=OH, R_3=H, R_4=H;

for calystegine B_2: R_1= H, R_2=OH, R_3=H, R_4=OH;

for calystegine B_3; R_1= H, R_2=H, R_3=OH, R_4=OH; and

for N-methyl-calystegine: R_1= CH_3, R_2=OH, R_3=H, R_4=H.

18. (new) A method of stabilizing lysosomal α-galactosidase A in mammalian cells comprising administering an effective amount of a compound of formula:

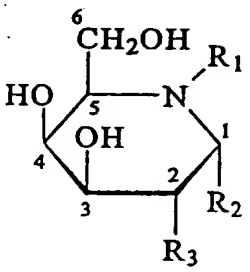


wherein R_1 represents H, CH_3, or CH_2CH_3;

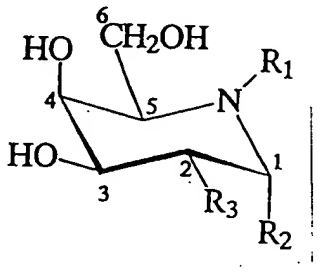
R_2 and R_3 independently represent H, OH, a 1-6 carbon alkyl, hydroxyalkyl, alkoxy, or a simple sugar; and

R_4 and R_5 independently represent H or OH.

19. (new) A method of preventing the degradation of lysosomal α-galactosidase A in a mammalian comprising administering an effective amount of a compound of the formula:



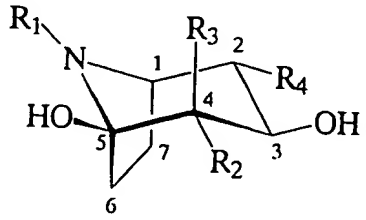
or



wherein R_1 represents H, CH_3, or CH_2CH_3; and

R_2 and R_3 independently represent H, OH, a simple sugar, a 1-3 carbon alkyl, alkoxyl, or hydroxyalkyl group.

20. (new) A method of preventing the degradation of lysosomal α-galactosidase A in a mammalian comprising administering an effective amount of a compound of the formula:



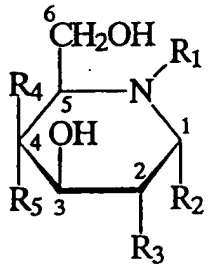
wherein for calystegine A_3: R_1= H, R_2=OH, R_3=H, R_4=H;

for calystegine B_2: R_1= H, R_2=OH, R_3=H, R_4=OH;

for calystegine B_3; R_1= H, R_2=H, R_3=OH, R_4=OH; and

for N-methyl-calystegine: $R_1 = CH_3$, $R_2 = OH$, $R_3 = H$, $R_4 = H$.

21. (new) A method of preventing the degradation of lysosomal α-galactosidase A in a mammalian comprising administering an effective amount of a compound of the formula:

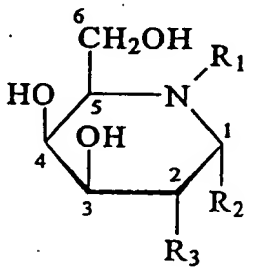


wherein R_1 represents H, CH_3, or CH_2CH_3;

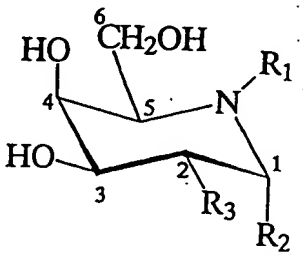
R_2 and R_3 independently represent H, OH, a 1-6 carbon alkyl, hydroxyalkyl, alkoxy, or a simple sugar; and

R_4 and R_5 independently represent H or OH.

22. (new) A method of preventing deposition of neutral glycosphingolipids in vascular endothelial cells in an individual in need thereof, comprising administering an effective amount of a compound of formula:



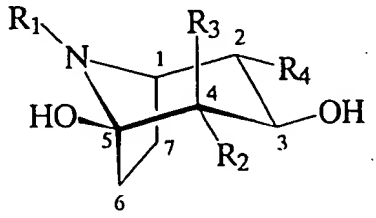
or



wherein R_1 represents H, CH_3, or CH_2CH_3; and

R_2 and R_3 independently represent H, OH, a simple sugar, a 1-3 carbon alkyl, alkoxyl, or hydroxyalkyl group.

23. (new) A method of preventing deposition of neutral glycosphingolipids in vascular endothelial cells in an individual in need thereof, comprising administering an effective amount of a calystegine compound of formula:



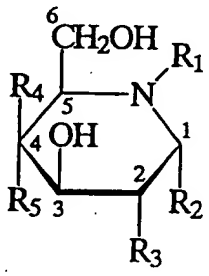
wherein for calystegine A_3: R_1= H, R_2=OH, R_3=H, R_4=H;

for calystegine B_2: R_1= H, R_2=OH, R_3=H, R_4=OH;

for calystegine B_3; R_1= H, R_2=H, R_3=OH, R_4=OH; and

for N-methyl-calystegine: R_1= CH_3, R_2=OH, R_3=H, R_4=H.

24. (new) A method of preventing deposition of neutral glycosphingolipids in vascular endothelial cells in an individual in need thereof, comprising administering an effective amount of a compound of formula:



wherein R_1 represents H, CH_3, or CH_2CH_3;

R_2 and R_3 independently represent H, OH, a 1-6 carbon alkyl, hydroxyalkyl, alkoxy, or a simple sugar; and

R_4 and R_5 independently represent H or OH.

25. (new) The method of claim 24, wherein the compound is selected from the group consisting of 1-deoxynojirimycin, 1-deoxygalactonojirimycin, α-homonojirimycin, 3,4-di*epi*-α-homonojirimycin, and 4-*epi*-fagomine.

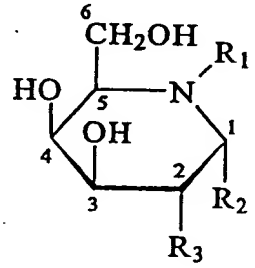
26. (new) The method of claim 25 wherein the compound is 1-deoxygalactonojirimycin.

27. (new) The method of claim 22, wherein the glycosphingolipids are predominantly ceramide trihexoside.

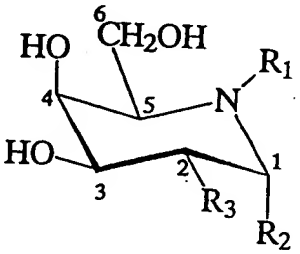
28. (new) The method of claim 23, wherein the glycosphingolipids are predominantly ceramide trihexoside.

29. (new) The method of claim 24, wherein the glycosphingolipids are predominantly ceramide trihexoside.

30. (new) A method of preventing renal failure associated with deposition of neutral glycosphingolipids in vascular endothelial cells in an individual in need thereof, comprising administering an effective amount of a compound comprising administering an effective amount of a compound of formula:



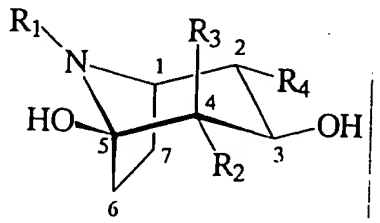
or



wherein R_1 represents H, CH_3, or CH_2CH_3; and

R_2 and R_3 independently represent H, OH, a simple sugar, a 1-3 carbon alkyl, alkoxyl, or hydroxy-alkyl group.

31. (new) A method of preventing renal failure associated with deposition of neutral glycosphingolipids in vascular endothelial cells in an individual in need thereof, comprising administering an effective amount of a calystegine compound comprising administering an effective amount of a compound of formula:



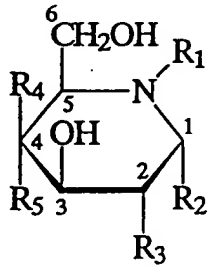
wherein for calystegine A_3: R_1= H, R_2=OH, R_3=H, R_4=H;

for calystegine B_2: R_1= H, R_2=OH, R_3=H, R_4=OH;

for calystegine B_3; R_1= H, R_2=H, R_3=OH, R_4=OH; and

for N-methyl-calystegine: R_1= CH_3, R_2=OH, R_3=H, R_4=H.

32. (new) A method of preventing renal failure associated with deposition of neutral glycosphingolipids in vascular endothelial cells in an individual in need thereof, comprising administering an effective amount of a compound comprising administering an effective amount of a compound of formula:



wherein R_1 represents H, CH_3, or CH_2CH_3;

R_2 and R_3 independently represent H, OH, a 1-6 carbon alkyl, hydroxyalkyl, alkoxy, or a simple sugar; and

R_4 and R_5 independently represent H or OH.

33. (new) The method of claim 32, wherein the compound is selected from the group consisting of 1-deoxynojirimycin, 1-deoxygalactonojirimycin, α-homonojirimycin, , 3,4-di*epi*-α-homonojirimycin, and 4-*epi*-fagomine.

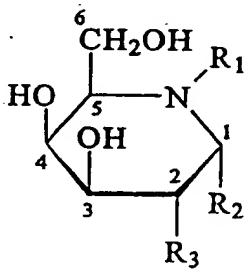
34. (new) The method of claim 33 wherein the compound is 1-deoxygalactonojirimycin.

35. (new) The method of claim 30, wherein the glycosphingolipids are predominantly ceramide trihexoside.

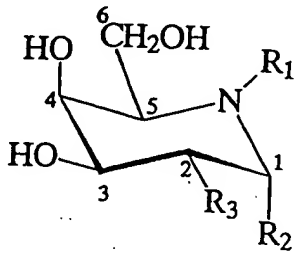
36. (new) The method of claim 31, wherein the glycosphingolipids are predominantly ceramide trihexoside.

37. (new) The method of claim 32, wherein the glycosphingolipids are predominantly ceramide trihexoside.

38. (new) A method of preventing premature myocardial infarctions and strokes associated with deposition of neutral glycosphingolipids in vascular endothelial cells in an individual in need thereof, comprising administering an effective amount of a compound of formula:



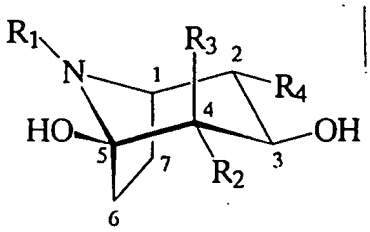
or



wherein R_1 represents H, CH_3, or CH_2CH_3; and

R_2 and R_3 independently represent H, OH, a simple sugar, a 1-3 carbon alkyl, alkoxyl, or hydroxy-alkyl group.

39. (new) A method of preventing premature myocardial infarctions and strokes associated with deposition of neutral glycosphingolipids in vascular endothelial cells in an individual in need thereof, comprising administering an effective amount of a compound of formula:



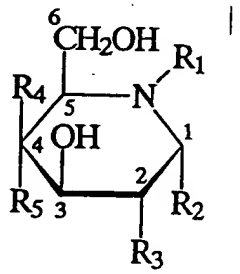
wherein for calystegine A_3: R_1= H, R_2=OH, R_3=H, R_4=H;

for calystegine B_2: R_1= H, R_2=OH, R_3=H, R_4=OH;

for calystegine B_3; R_1= H, R_2=H, R_3=OH, R_4=OH; and

for N-methyl-calystegine: R_1= CH_3, R_2=OH, R_3=H, R_4=H.

40. (new) A method of preventing premature myocardial infarctions and strokes associated with deposition of neutral glycosphingolipids in vascular endothelial cells in an individual in need thereof, comprising administering an effective amount of a compound of formula:



wherein R_1 represents H, CH_3, or CH_2CH_3;

R_2 and R_3 independently represent H, OH, a 1-6 carbon alkyl, hydroxyalkyl, alkoxy, or a simple sugar; and

R_4 and R_5 independently represent H or OH.

41. (new) The method of claim 40, wherein the compound is selected from the group consisting of 1-deoxynojirimycin, 1-deoxygalactonojirimycin, α-homonojirimycin, 3,4-di*epi*-α-homonojirimycin, and 4-*epi*-fagomine.

42. (new) The method of claim 41 wherein the compound is 1-deoxygalactonojirimycin.

43. (new) The method of claim 38, wherein the individual has the atypical variant form of Fabry disease.

44. (new) The method of claim 39, wherein the individual has the atypical variant form of Fabry disease.

45. (new) The method of claim 40, wherein the individual has the atypical variant form of Fabry disease.

46. (new) The method of claim 38, wherein the glycosphingolipids are predominantly ceramide trihexoside.

47. (new) The method of claim 39, wherein the glycosphingolipids are predominantly ceramide trihexoside.

48. (new) The method of claim 40, wherein the glycosphingolipids are predominantly ceramide trihexoside.